

Confirmation no. 9018, A. D. Barfield, Art Unit 3636; 09/554,464; Docket No: PAT6C; Go

List of Claim-Identifiers.

Claims 1, 46- 49 and 52 are amended.

Claims 50 and 51 are original.

1. (amended) A restraint system equipped with a shoulder holder to increase survival
5 chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt (1d, 1e), consisting of several belt portions, at least one latch plate, a buckle assembly, a belt pretensioner and belt fittings;

10 a shoulder holder (10d), having a pair of shoulder caps (10.2d), which, when in a resting position, are located in a seat backrest (3.2d, 3.2e); and

a [[manually-operated]] rotatable device (28), having a pair of rotatable levers (28.5), retained by stop pieces (28.9) in the resting position, where the rotatable levers (28.5), having first ends, connected to the pair of shoulder caps (10.2d), and second ends, connected to each other by a shaft (28.7), are rotatably attached to a pair of casings (29),
15 each of which, defined by an L-shaped plate (28.4) and two outer tubes (28.1, 28.2), connected to each other by a coupling wall (28.3), is height-adjustable, latchable and guided by inner tubes (71, 72) of a seat backrest frame (3.4d, 3.4e);

wherein

a passenger is restrained by the seat belt (1d, 1e) and his shoulders are restrained by the
20 shoulder caps (10.2d), moved by the rotatable device, [[manually-]] when operated[[,]] from the resting position to an operative position;

where at least one shoulder belt portion of the seat belt (1d, 1e) is extended over the respective shoulder cap and a U-shaped plate (10.15) thereof, when the rotatable levers (28.5) are [[manually]]rotated, causing release cams (28.6) of the rotatable levers to
25 force a rotation of lock pawls (28.8), pre-loaded by first springs (28.10), thereby permitting locking pins (28.12), pre-loaded by second springs (28.13) and loosely guided in guide tubes (28.11), to move into holes (28.14) of the casings (29) and block the rotatable levers in both directions.

46. (amended) [[An anti-submarining seat-belt assembly to absorb energy and dampen
30 vibrations in the real-world accident, a rollover or the turbulence-related vibrations according to claim 43, wherein the lap belt portion (1.3) of the seat belt (1d, 1e), provided with at least

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one movable anti-submarining latch plate (11, 25), is subdivided into two anti-submarining belt portions;

which restrain both thighs of the passenger upon plug-in connection of the movable anti-submarining latch plate (11, 25) with one of anti-submarining buckle assemblies (7, 8, 8a) of a seat cushion, whose frame is equipped with the guide pieces (4.7a) and the energy-absorbing, vibration-dampening device;

where release cables (4.2) connect release buttons of the submarining buckle assemblies to a common release button (84o), located on the seat cushion, which, when depressed, disengages the movable anti-submarining latch plate (11, 25) while the restraint of the belted passenger remains unaffected.]]

The restraint system according to claim 3, wherein the buckle assembly of the seat belt has a master release button (84).

provided with release wires connecting to electrical motors (4.2b) of release buttons of the pairs of buckle assemblies of the seat backrest, to one of which the latch plates of the shoulder holder are plug-in connected;

where the master release button (84), when depressed, disengages all the latch plates of the shoulder holder and seat belt.

47. (amended) The restraint system according to claim 13, wherein the [[lap]] buckle assembly of the seat belt[[(9.1)]] has a master release button (84);

[[which is connected to release buttons of the remaining buckle assemblies of the seat belt and to release buttons of the pairs of buckle assemblies, to one of which the latch plates of the holder are plug-in connected;]]

provided with release cables (4.2) connecting to release buttons of the pairs of buckle assemblies of the seat backrest, to one of which the latch plates of the shoulder- and neck holder are plug-in connected;

where the master release button (84), when depressed, disengages all the latch plates of the shoulder- and neck holder and seat belt.

48. (amended) The restraint system according to claim [[3]] 46, wherein the shoulder holder is attached to the seat for the purpose of storage and detachable therefrom by depressing a release button (87a to 87c) of the seat.

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49. (amended) The restraint system according to claim ~~[[13]]~~ 47, wherein the shoulder- and neck holder is attached to the seat for the purpose of storage and detachable therefrom by depressing a release button of the seat.

50. (original) An energy-absorbing, vibration-dampening safety seat according to claim 49, wherein

sets of vibration-dampening energy absorbers, the seat belt, holder and seat are integrated into a safety adult-seat;

which is transformed into a safety child-seat when a detachable front portion of the seat cushion (3.1a) serves as a shoulder- and neck holder (10a), the latch plates of which are plug-in connected to one of the pairs of buckle assemblies (18a / 19a to 18n / 19n) of the seat backrest, to restrain shoulders and a neck of a belted child and the space thereof is exploited to accommodate legs of the child sitting on the rear portion thereof;

where the safety child-seat can be converted back into the safety adult-seat.

51. (original) An energy-absorbing, vibration-dampening safety baby-cot according to claim 50, wherein

the safety child-seat is transformed into a safety baby-cot when the seat backrest is flipped downwards;

where the safety baby-cot can directly be converted back either into the safety child-seat or into the safety adult-seat.

52. (amended) The restraint system according to claim ~~[[46]]~~ 47, wherein ~~[[the lap buckle assembly (9.1) has a master release button (84),~~

which is connected to release buttons of the remaining buckle assemblies of the seat belt and to release buttons of the pairs of buckle assemblies, to one of which the latch plates of the holder is plug-in connected, as well as to the release buttons of the anti-submarining buckle assemblies,]]

a common release button (84a), located on the seat cushion, is provided with release cables (4.2) connecting to release buttons of the pairs of buckle assemblies of the seat backrest, to one of which the latch plates of the shoulder- and neck holder are plug-in connected;

where the common ~~[[master]]~~ release button (84a), when depressed, disengages the ~~[[movable anti-submarining latch plate and all the]]~~ latch plates of the shoulder- and neck holder ~~[[and seat belt]]~~ while the passenger remains belted.

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1. A restraint system equipped with a shoulder holder to increase survival chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt (1d, 1e), consisting of several belt portions, at least one latch plate, a buckle assembly, a belt pretensioner and belt fittings;

a shoulder holder (10d), having a pair of shoulder caps (10.2d), which, when in a resting position, are located in a seat backrest (3.2d, 3.2e); and

a rotatable device (28), having a pair of rotatable levers (28.5), retained by stop pieces (28.9) in the resting position, where the rotatable levers (28.5), having first ends, connected to the pair of shoulder caps (10.2d), and second ends, connected to each other by a shaft (28.7), are rotatably attached to a pair of casings (29), each of which, defined by an L-shaped plate (28.4) and two outer tubes (28.1, 28.2), connected to each other by a coupling wall (28.3), is height-adjustable, latchable and guided by inner tubes (71, 72) of a seat backrest frame (3.4d, 3.4e);

wherein

a passenger is restrained by the seat belt (1d, 1e) and his shoulders are restrained by the shoulder caps (10.2d), moved by the rotatable device, when operated from the resting position to an operative position;

where at least one shoulder belt portion of the seat belt (1d, 1e) is extended over the respective shoulder cap and a U-shaped plate (10.15) thereof, when the rotatable levers (28.5) are rotated, causing release cams (28.6) of the rotatable levers to force a rotation of lock pawls (28.8), pre-loaded by first springs (28.10), thereby permitting locking pins (28.12), pre-loaded by second springs (28.13) and loosely guided in guide tubes (28.11), to move into holes (28.14) of the casings (29) and block the rotatable levers in both directions.

46. The restraint system according to claim 3, wherein the buckle assembly of the seat belt has a master release button (84),

provided with release wires connecting to electrical motors (4.2b) of release buttons of the pairs of buckle assemblies of the seat backrest, to one of which the latch plates of the shoulder holder are plug-in connected;

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where the master release button (84), when depressed, disengages all the latch plates of the shoulder holder and seat belt.

47. The restraint system according to claim 13, wherein the buckle assembly of the seat belt has a master release button (84),

5 provided with release cables (4.2) connecting to release buttons of the pairs of buckle assemblies of the seat backrest, to one of which the latch plates of the shoulder- and neck holder are plug-in connected;

where the master release button (84), when depressed, disengages all the latch plates of the shoulder- and neck holder and seat belt.

10 48. The restraint system according to claim 46, wherein the shoulder holder is attached to the seat for the purpose of storage and detachable therefrom by depressing a release button (87a to 87c) of the seat.

15 49. The restraint system according to claim 47, wherein the shoulder- and neck holder is attached to the seat for the purpose of storage and detachable therefrom by depressing a release button of the seat.

50. An energy-absorbing, vibration-dampening safety seat according to claim 49, wherein sets of vibration-dampening energy absorbers, the seat belt, holder and seat are integrated into a safety adult-seat;

20 which is transformed into a safety child-seat when a detachable front portion of the seat cushion (3.1a) serves as a shoulder- and neck holder (10a), the latch plates of which are plug-in connected to one of the pairs of buckle assemblies (18a / 19a to 18n / 19n) of the seat backrest, to restrain shoulders and a neck of a belted child and the space thereof is exploited to accommodate legs of the child sitting on the rear portion thereof;

where the safety child-seat can be converted back into the safety adult-seat.

25 51. An energy-absorbing, vibration-dampening safety baby-cot according to claim 50, wherein

the safety child-seat is transformed into a safety baby-cot when the seat backrest is flipped downwards;

30 where the safety baby-cot can directly be converted back either into the safety child-seat or into the safety adult-seat.

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52. The restraint system according to claim 47, wherein
a common release button (84o), located on the seat cushion, is provided with release
cables (4.2) connecting to release buttons of the pairs of buckle assemblies of the seat
backrest, to one of which the latch plates of the shoulder- and neck holder are plug-in
connected;

where the common release button (84o), when depressed, disengages the latch plates of
the shoulder- and neck holder while the passenger remains belted.

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